MEETING MINUTES

SO_2 INDUSTRIAL STAKEHOLDER MEETING

Department of Environmental Quality
Room 108, Airport Industrial Park 1P-9
1371 Rimtop Drive
Billings, MT 59105
October 28, 2010 (10:00 am - Noon)

Disclaimer: This meeting was not professionally recorded. Therefore, the following meeting minutes provide a general Department of Environmental Quality (Department) summary of topics and discussion based upon notes and Department recollection of the meeting. Participant recollection of conversations and events may differ.

I. WELCOME & INTRODUCTIONS

The Department opened the meeting at 10:08am. Meeting participants included Tim Quarles (Sage Environmental), Hal Robbins (Bison Engineering), Donna Eden (Montana Sulphur), Larry Zink (Montana Sulphur), Jim Parker (PPL Montana), Greg Brown (Cenex Harvest States), Russ Boschee (Riverstone Health), Clark Snyder (Riverstone Health), Randall Richert (ConocoPhillips), Steve Marts (ExxonMobil), Joe Lierow (ExxonMobil), Bill Mercer (Holland and Hart), Bruce Stevenson (Yellowstone Energy Limited Partnership), Eric Merchant (Department), Hoby Rash (Department), Dave Klemp (Department), and Bob Habeck (Department). The Department provided an overview of the agenda.

II. MONITORING DATA REVIEW & INTEGRITY

- Monitoring Data Quality Assurance / Quality Control

  The Department gave the group a PowerPoint presentation providing an overview of the data integrity process (QA/QC) for ambient air quality monitoring data. This included QA/QC roles and responsibilities within the Department and EPA.

  The Department discussed industrial monitoring data quality. From the Department's perspective, and in accordance with applicable federal and state requirements, industrial sites are collecting quality data suitable for regulatory purposes such as initial federal designations, design values, modeling, etc.

  The Department discussed recent internal review of SO_2 monitoring data and erroneous data discovered since the September meeting. Certain data had been removed from the 2009 Coburn Road State or Local Air Monitoring Station (SLAMS) data set. A memorandum including details related to why certain values were removed from the 2009 data set has

been developed and posted to the Department's SO_2 NAAQS website at http://deq.mt.gov/airquality/SO2NAAQS/default.mcpx.

- Stakeholder Independent QA/QC Evaluation

  A meeting participant asked if the Coburn Road SLAMS had any other high values from the current and previous years in question. The Department responded by stating that all high values from the years 2007-09 had been re-evaluated through the state QA/QC process and determined to be appropriate. The QA/QC process for the 2010 data set has only been completed and entered into EPA's AQS database for the first and second quarters. Rather than speculate on "what might happen" with the 2010 Coburn Road SLAMS data set, the Department indicated their intent to wait until all the data is fully QA/QC'd before discussing potential initial designation status/design value for the years 2008-2010.

  A participant stated that their company also believes it is too early and that speculation based on a limited data set is inappropriate. This company may hire a contractor to review the data. Participants thanked the Department for posting the data so quickly and for removing erroneous values.

  A participant asked when a complete 2010 data set for the Coburn Road SLAMS site would be available. In accordance with applicable federal requirements, the Department provided that states have up to 90 days following the end of the calendar year before all the data must be quality assured and submitted to EPA's AQS database.

  A participant stated that they intend to evaluate affected data from the BLAQTC monitoring sites. This participant asked if the Department believes EPA will consider industrial data for NAAQS compliance purposes. The Department stated that they cannot speak for EPA, but there is no reason to believe EPA would not use this data to evaluate NAAQS compliance in the area given that the data is of compliance quality.

  A participant asked when the Department would like to have the independent review of 2010 data completed by the stakeholders. The Department responded that industry should have their independent data review completed in advance of the June 2011 designation date, allowing adequate time for Department consideration of any issues arising from the review.

  A participant asked about Department and stakeholder concurrent review of pending 2010 data. The Department stated that data will not be available for stakeholder review until it has been through the state QA/QC process and has been posted to EPA's AQS database. After submittal to EPA the Department will provide stakeholders with access to the data. The

Department stated that their QA/QC process is important to ensure that stakeholders are evaluating quality data.

A participant asked about the process for initial designation. The Department stated that the process is underway and that the Department will develop a recommendation, including a technical analysis, for the Governor's consideration prior to the June 2011 designation date. The Governor will then designate areas. In addition to the Department's recommendation, it was recognized that there is a political process whereby the Governor may be approached with additional information regarding the designations prior to EPA submittal.

- Industrial Data: YELP, Laurel, & BLAQTC

  A participant asked for clarification regarding the potential use of industrial data for regulatory purposes. The Department stated that industrial data in the affected area is considered to be quality data eligible for regulatory purposes such as designations, design values, and modeling.

- Maximum Concentration Site / Monitoring Network Review

  The Department spoke to the 2011 annual Monitoring Network Review (MNR) process and the need to re-evaluate the existing SO_2 network under the revised NAAQS, including an evaluation of the potential for additional SO_2 SLAMS sites.

  A participant asked about the need to potentially site additional SLAMS monitors in the Billings/Laurel area and how that would fit EPA's modeling guidance. The Department responded that EPA guidance indicates that, in implementing a new or revised NAAQS, states should evaluate existing monitoring sites to determine if these sites represent the maximum impact/concentration. However, the Department stated the revised NAAQS implementation rule does not require Montana to conduct additional SLAMS monitoring. Additionally, the Department stated that it will follow requirements outlined in the rule and not the pre-amble to the rule.

  A participant asked if the evaluation of the maximum concentration site would necessarily include modeling. The Department stated that modeling could be used for this purpose and that this approach would be considered in the 2011 MNR, but that modeling is not required and may be premature at this time. Initial designations will be based upon existing monitoring data and siting additional SLAMS monitors at this time would not be additive to the initial designation process. The Department indicated that modeling for the maximum 1-hr concentration site may be considered at some time in the future, but not for initial designation purposes.

A participant asked when the annual MNR begins. The Department stated that the process typically begins in January and that it is a public process in which stakeholders will be informed along the way. The annual MNR is required to be submitted to EPA no later than July 1st of each year.

A participant asked if modeling results from an MNR evaluation could influence EPA for designation purposes and if EPA could ignore existing monitoring data to make a designation based upon modeling information that shows a different maximum concentration site? The Department was uncertain if EPA would/could use such information when considering initial designations. It is also uncertain how EPA would use such information in support of the rule preamble-approach incorporating both monitoring and modeling for attainment designations.

A participant again asked if the Department was required to conduct, or has historically conducted, modeling to implement the annual MNR. The Department stated that modeling is not required and that typically modeling is not conducted for MNR purposes. However, the Department provided that typically the MNR does not include evaluating a new NAAQS and that using a model may be the best approach for the revised SO_2 NAAQS due to the industrial point source nature of SO_2 emissions. The Department reiterated that timing of such a modeling analysis would be the issue for overall implementation of the revised SO_2 NAAQS and that the current focus on initial designations would not be affected by the pending 2011 MNR.

Further discussion regarding the use of models for evaluation of the maximum concentration site and the potential for EPA to use this information for designations ensued. A participant noted that siting of the existing monitors in the Billings / Laurel airshed was accomplished through modeling with consideration for the 3-hour Montana ambient air quality standard (MAAQS). The Department noted agreement, but the use of new models such as AERMOD, new stack heights, and the revised form of the NAAQS may result in a different maximum concentration site. The Department will continue to seek input from and involve stakeholders in the MNR process.

III. DESIGNATIONS & BOUNDARY DETERMINATION

- Initial Designation Milestones

The Department outlined the master timeline for designations. The affected PowerPoint slide was based on a September 2010 presentation by EPA at the WESTAR Fall Business meeting in Portland, OR. A participant asked for clarification on the process whereby EPA can disagree with a state designation. The Department indicated that EPA has final authority for designations and that if they disagree with state's designation they must

provide the state with at least 120 days advance notification and a 60 day consultation period prior to final designations.

- EPA/Regulatory Basis for Designations / Implementation Strategy

  The Department spoke to the Federal Register (FR) preamble language which states that initial designations of "nonattainment" will be based upon monitoring data; "attainment" designations will require a hybrid of monitoring and modeling data; and areas without monitoring data, including areas where major SO_2 sources are located, will initially be designated "unclassifiable". Unclassifiable designations for areas where significant sources of SO_2 are located will ultimately require modeling to ensure State Implementation Plan (SIP) adequacy. The Department indicated that modeling represents a significant departure from typical SIP adequacy demonstrations or "maintenance/infrastructure" SIPs under CAA §110(a)(2).

  A participant asked about EPA's approach for unclassifiable designations – so why now when it has not been done in the past for SO_2 or other pollutants? The Department stated that under the current EPA / Presidential Administration, the process is more stringent for requiring states to demonstrate compliance to standards. EPA has always had the ability to require further evaluation of SIP adequacy, but in the past this has been done through EPA making a SIP call after NAAQS implementation. In this case, EPA's proposed "maintenance SIP" approach effectively serves as the state preemptively calling its own SIP.

  Several participants stated the importance of knowing what the state is planning on doing regarding designation methodology. The Department provided that recommendations to the Governor for initial designations will be based on technical evaluation of available monitoring data and that areas without monitoring data will be designated attainment or unclassifiable.

- All MT Counties / Areas Outside Yellowstone County Unclassifiable?

  The Department re-stated their intent to recommend initial "unclassifiable" designations for all areas in the state without monitoring data.

- Yellowstone County Nonattainment / Unclassifiable?

  The Department discussed the opportunity for initial "unclassifiable" or "attainment" designations for Yellowstone County or a smaller geographic area within Yellowstone County pending final QA/QC monitoring data results.

- Limited Geographic Boundary Nonattainment Designation (9-Factor)?

The Department discussed the process to limit the geographic extent of a potential Yellowstone County "nonattainment" designation. EPA provides a "9-Factor" analysis / process for this purpose. The Department indicated that 6 of these 9 factors are likely applicable for a demonstration related to SO_2. The 9 factors do not include a specific requirement for modeling. Participants stated their support for a limited geographic nonattainment area vs. the entirety of Yellowstone County if the 2008-10 design value for the Billings / Laurel area shows a violation of the NAAQS.

IV. OPEN FORUM

- Discussion / Question and Answer

The Department provided a staff contact list and a discussion of how the team will operate internally. Stakeholders were asked to go through Eric Merchant as the primary contact for issues related to the SO_2 NAAQS.

The Department asked if the stakeholders present believe that they are the total 'universe' of affected industrial sources in Yellowstone County. The Department offered that mobile sources (planes, trains, automobiles, non-road vehicles) may contribute some SO_2, but likely would be considered insignificant for SIP purposes. Participants agreed that those in attendance represent all significant sources of SO_2 in the Billings/Laurel area.

Further discussion regarding the geographic extent of sources 'causing or contributing' to SO_2 impacts in the Billings/Laurel area ensued. Discussion included establishing a limited nonattainment area boundary and controlling sources inside and outside of the boundary. The Department indicated that, if needed, the development of a control plan for the area would include evaluating sources located both inside and outside the boundary and that any source 'causing or contributing' to the problem would be considered.

A participant asked if MT has any intention of joining a lawsuit with North Dakota and Texas. The Department responded by stating that Texas is currently at odds with EPA on many issues including SO_2 NAAQS implementation and thus it may not be in the best interest in the state to join their suit at this time. The Department also provided that the North Dakota lawsuit ask EPA to clarify their stated methodology for implementing the NAAQS (modeling vs. modeling). Therefore, it may be premature for Montana to join in the suit.

A participant asked if there would be any value in approaching EPA with the new 2007-09 monitoring data/design value demonstrating that Yellowstone County is in attainment with the NAAQS. This information would contradict EPA's preliminary basis for non-compliance. The Department responded that there is value in providing this information to EPA but indicated that timing is a key issue. The Department stated that

being strategic with when/how certain information is shared with EPA may be important for overall implementation. The most important data (2008-10) has yet to be obtained and QA/QC'd for designation purposes.

A participant stated that the Department needs feedback from stakeholders along the way. The Department agreed. The Department stated that assistance may take place in the form of independent data review, technical studies, report review, etc. The need for direct stakeholder participation in such matters will be evident as additional data is collected and QA'd, lawsuits are settled, and additional guidance becomes available.

A participant asked about the monitoring data/reports that have been posted on the Department's website and whether there was any additional information that may be of value or general interest that has not been posted to the website? The Department stated that the actual Coburn road monitoring site 'station logs' maintained by Yellowstone County personnel are available for review, but the importance of the station logs was questionable as this information is already considered through the QA/QC process.

A participant asked about the monitoring QA/QC process. The Department stated there is a daily 'auto zero' check performed by the instrument. The hourly data is invalidated for the whole hour during that internal check. The function automatically resets the zero response of the analyzer in accordance with the EPA equivalency designation.

In addition, on a weekly or worst-case bi-weekly interval, the site operator performs a "Zero-Span-Precision" (ZSP) check of the SO_2 analyzer by injecting three known concentrations of gas and then evaluates the instrument responses. The results are recorded on the ZSP or "Control Charts" (see those posted on the Department website). Each of the ZSP responses is evaluated by two levels of criteria: a "warning" level, and a "control" level. If a response exceeds the warning level then the site operator recalibrates the analyzer, and all hourly data are retained. If a value exceeds the control level then the site operator recalibrates the analyzer, but the hourly data is deleted back to the last valid ZSP or calibration. The operator also recalibrates the analyzer on a quarterly basis. Finally, the Department stated that it conducts independent audits of the SO_2 analyzer on a quarterly basis using equipment and certified gas distinct from those used to calibrate the instrument.

A participant asked about the range of the instrument and whether it best characterizes the ambient concentrations that it is measuring. The Department responded that the instrument is currently set to measure a range of 0 to 500 ppb in order to accommodate the MAAQS. A participant stated their thought that the Coburn Road span was 0 to 1000 ppb. The Department stated that it had been set at a range of 0 to 1000 ppb but that

it has been dialed-back over the last few months to 500 ppb in order to improve instrument sensitivity. The instrument range was reset on August 23, 2010.

A participant communicated about the instrument ranges and how they effect EPA's reference method equivalency designations. Another participant asked what EPA thinks the span should be? The Department stated it was not aware of any EPA guidance. However, after subsequent research regarding this matter, the Department provides the following quote from the EPA Ambient Air Monitoring Quality Assurance Handbook Volume II, Section 7.0, Revision 1: "Although all FRM/FEMs are required to meet the range specified in Table 7-5, many instruments are designated for ranges narrower and or broader than the requirement. During the equipment purchase/selection phase, monitoring organizations should select an instrument with ranges most appropriate to the concentration at the site which the instrument will be established and then use the range that is most appropriate for the monitoring situation.

Earlier versions of this Handbook suggested that the concentration of the span checks be 70 – 90% of the analyzers measurement range. Using this guidance and the designated ranges of some of the FRM/FEM method being used, a span check might be selected at a concentration that is never found in the ambient air at the site for which the monitoring is operating.

The span check concentration should be selected that is more beneficial to the quality control of the routine data at the site and EPA suggests: 1) the selection of an appropriate measurement range and 2) selecting a span that at a minimum is above 120% of the highest NAAQS (for sites used for designation purposes) and above the 99% of the routine data over a 3 year period. The multi-point verification/calibrations that are performed at a minimum annually can be used to challenge the instrument and confirm linearity and calibration slope of the selected operating range."

EPA's reference method equivalency designation for the API Model 100A analyzer employed by the Department at Coburn Road has been posted on the Department's website.

Finally, a participant asked if calibration gas data is on the web. The Department stated that calibration gas data is located on the calibration and audit forms.

V. NEXT MEETING

- Process Forward / Topics for Next Meeting

The Department and stakeholders group agreed that the next steps would be to evaluate 3rd and 4th quarter monitoring data to better understand initial

designation status. Further, the Department and stakeholders will continue to track on-going lawsuits and pending NAAQS implementation guidance.

A participant suggested that the industrial stakeholder group and Department meet via conference call in early December to discuss any changes and/or developments with data, regulations, guidance, etc. The Department agreed with this strategy and suggested the group use Citrix GoTo Meeting®. The Department will establish a meeting date and notify stakeholders.

The meeting concluded at 12:25 pm.